

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A ceramic carrier capable of supporting a catalyst component directly on the surface of a ceramic substrate ~~ceramic~~ provided with a multitude of cells which are substantially parallel to each other with the inside thereof serving as a gas flow passage, wherein said cell wall has an irregular surface.

2. (Original) The ceramic carrier according to claim 1, wherein said cell wall surface is corrugated or roughened.

3. (Currently Amended) The ceramic carrier according to claim 2, wherein said corrugated surface has a pitch which is not larger than the length of the ceramic carrier.

4. (Currently Amended) The ceramic carrier according to claim 2, wherein the pitch of said corrugated surface is 20 mm or less.

5. (Currently Amended) The ceramic carrier according to claim 2, wherein the pitch of said corrugated surface is 5 mm or less.

6. (Currently Amended) The ceramic carrier according to claim 2, wherein an amplitude of said corrugated surface is 1/2 of the cell pitch or smaller.

7. (Currently Amended) The ceramic carrier according to claim 2, wherein an amplitude of said corrugated surface is in a range from  $1/3$  to  $1/2$  of the cell pitch.

8. (Original) The ceramic carrier according to claim 1, wherein a plurality of projections are provided which protrude inward from said cell wall surface.

9. (Currently Amended) The ceramic carrier according to claim 8, wherein a cross sectional area of said projection is  $\leq 1/2$  of anthe opening area of the cell-~~or~~ smaller.

10. (Currently Amended) The ceramic carrier according to claim 8, wherein a cross sectional area of said projection is in a range from  $1/20$  to  $1/3$  of anthe opening area of the cell.

11. (Currently Amended) A ceramic carrier capable of supporting a catalyst component directly on the surface of a ceramic substrate ~~ceramic~~-provided with a multitude of cells which are substantially parallel to each other with the inside thereof serving as a gas flow passage, wherein said gas flow passage is not straight.

12. (Currently Amended) The ceramic carrier according to claim 11, wherein said multitude of cells are warped alongin the direction of said gas flow passage.

13. (Currently Amended) The ceramic carrier according to claim 11, wherein said carrier has a radius of curvature not larger than 100 m.

14. (Currently Amended) The ceramic carrier according to claim 11, wherein said carrier has a radius of curvature not larger than 10 m.

15. (Currently Amended) The ceramic carrier according to claim 11, wherein said carrier has a radius of curvature which is in 15 a range from 200 to 500 mm.

16. (Currently Amended) The ceramic carrier according to claim 11, wherein said multitude of cells are curved in a spiral along in the direction of said gas flow passage.

17. (Currently Amended) The ceramic carrier according to claim 11, wherein the gas flow passage rotates by 0.1 degrees or more per 1 m of said ceramic carrier.

18. (Currently Amended) The ceramic carrier according to claim 11, wherein the gas flow passage rotates by one turn or more per 1 m of said ceramic carrier.

19. (Currently Amended) The ceramic carrier according to claim 11, wherein the gas flow passage rotates by two to four turns per 1 m of said ceramic carrier.

20. (Currently Amended) A ceramic carrier capable of supporting a catalyst component directly on the surface of a ceramic substrate ~~is ceramic~~ provided with a multitude of cells which are substantially parallel to each other with the inside thereof serving as a gas flow passage, wherein said cells have a cross sectional~~section in a~~ shape of any one of a polygon, L-shaped, convex, cross, S-shaped, dumbbell configuration or a combined shape thereof.

21. (Currently Amended) A ceramic carrier capable of supporting a catalyst component directly on the surface of a ceramic substrate ~~ceramic is~~ provided with a multitude of cells which are substantially parallel to each other with the inside thereof serving as a gas flow passage, wherein the multitude of cell~~cells~~ have a multitude of through holes formed in the cell wall.

22. (Currently Amended) The ceramic carrier according to claim 21, wherein a length of said through hole along~~in~~ the direction of the gas flow passage is  $\leq$  five times the cell pitch ~~or smaller~~.

23. (Currently Amended) The ceramic carrier according to claim 21, wherein length of said through hole along~~in~~ the direction of the gas flow passage is not larger than the cell pitch.

24. (Currently Amended) The ceramic carrier according to claim 21, wherein a width of said through hole in at~~the~~ direction perpendicular to the gas flow passage is

smaller than the cell pitch.

25. (Currently Amended) A ceramic carrier capable of supporting a catalyst component directly on the surface of a ceramic substrate ~~ceramic~~ wherein a porosity of said ceramic substrate ~~ceramic~~ is 5% or higher.

26. (Currently Amended) The ceramic carrier according to claim 25, wherein the porosity of said ceramic substrate ~~ceramic~~ is 10% or higher.

27. (Currently Amended) The ceramic carrier according to claim 25, wherein the porosity of said ceramic substrate ~~ceramic~~ is 30% or higher.

28. (Currently Amended) A ceramic carrier capable of supporting a catalyst component directly on the surface of a ceramic substrate is ~~ceramic~~ provided with a multitude of cells which are substantially parallel to each other with the inside thereof serving as a gas flow passage, wherein density of the cells is 50/in<sup>2</sup> or higher.

29. (Original) The ceramic carrier according to claim 28, wherein said density of the cells is 100/in<sup>2</sup> or higher.

30. (Original) The ceramic carrier according to claim 28, wherein said density of the cells is 400/in<sup>2</sup> or higher.

31. (Currently Amended) A ceramic carrier which has a multitude of cells disposed substantially parallel to each other with the inside thereof serving as a gas flow passage, wherein a plurality of ceramic carriers capable of supporting a catalyst component directly on the surface of a ceramic substrate ~~ceramic~~ are disposed in series in the direction of the gas flow passage, and the cell walls of said plurality of ceramic carriers are disposed so as to be discontinuous at their joints~~the joint~~.

32. (Currently Amended) The ceramic carrier according to claim 1, wherein one or more constituent element of the ceramic substrate ~~ceramic~~ is substituted with an element other than the constituent element, and the carrier is made capable of supporting the catalyst component directly on the substituting element.

33. (Original) The ceramic carrier according to claim 32, wherein said catalyst component is supported on the substituting element by a chemical bond.

34. (Original) The ceramic carrier according to claim 32, wherein said substituting element is one or more element having d or f orbits in the electron orbits thereof.

35. (Currently Amended) The ceramic carrier according to claim 1, which has a multitude of pores capable of supporting the catalyst component directly on the surface of the ceramic substrate ~~ceramic~~, wherein the catalyst component can be supported directly in the pores.

36. (Original) The ceramic carrier according to claim 35, wherein said pores comprise at least one kind selected from among a group consisting of defects in the ceramic crystal lattice, microscopic cracks in the ceramic surface and missing defects of the elements which constitute the ceramic.

37. (Currently Amended) The ceramic carrier according to claim 36, wherein a width of said microscopic cracks is 100 nm or less.

38. (Currently Amended) The ceramic carrier according to claim 36, wherein said pores have a diameter or width 1000 times the diameter of the catalyst ion to be supported or smaller, and the density of said pores is  $1 \times 10^{11}/L$  or higher.

39. (Currently Amended) The ceramic carrier according to claim 36, wherein said ceramic substrate ~~ceramic~~ includes cordierite as the main component, and said pores comprise defects formed by substituting a part of the constituent elements of the cordierite with metal element having a different valence ~~value of valence~~.

40. (Original) The ceramic catalyst body according to claim 39, wherein said defects comprise at least one kind, an oxygen defect or a lattice defect, and the density of cordierite crystal which includes at least one defect in a unit crystal lattice of cordierite is set to  $4 \times 10^{-6} \%$  or higher.

41. (Original) A ceramic catalyst body which is constituted from the ceramic carrier of claim 1 and has a catalyst component supported directly thereon without forming a coating layer.

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